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ABSTRACT

Often colleges and universities that are just beginning to include technical communication in their curricula do so using faculty trained in traditional English doctorate programs. This digest examines several areas of concern for such institutions and discusses: (1) characteristics of technical communication; (2) issues in teaching technical communication; and (3) resources for teaching technical communication. (RS)

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Teaching Technical Communication

by Rebecca Kelly

In the early 1900s, technical communication was a burgeoning professional field, represented in academe by service courses taught primarily at engineering institutions. By the 1980's, however, it had become a significant professional and academic discipline in its own right. James Souther (1990) offers the following as evidence to support this assertion:

- the expansion of professional organizations, in particular, the Society for Technical Communication
- the growth of academic organizations like the Association of Teachers of Technical Writing and the Council for Programs in Technical and Scientific Communication
- the quality of research, for business through the Document Design Center, and from academe, particularly at Carnegie-Mellon
- representation on the programs of conventions of major academic groups like the Modern Language Association and the National Council of Teachers of English
- an increase in the number of offerings, both in terms of classes and degree programs, at colleges and universities

Often colleges and universities that are just beginning to include technical communication in their curricula do so using faculty trained in traditional English doctoral programs. This ERIC Digest examines several areas of concern for such institutions and discusses 1) characteristics of technical communication; 2) issues in teaching technical communication; and 3) resources in teaching technical communication.

What characteristics distinguish technical communication?

Five characteristics distinguish technical communication from the more traditional composition courses in college curricula. Technical communication

- is situation oriented and often directed to very specific audiences
- has a strong visual component
- has ties to other fields, including psychology and computer science

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What issues concern teachers of technical communication?

Real-world Application

Chief among the issues of concern to teachers of technical communication is the importance of real-world application and practice. Sometimes these real-world experiences must be simulated experiences, or "cases," such as those devised by Gifford (1983) or Smith (1990). Another technique is to adapt real-world situations, as Morrow (1988) does with cases in operations management. Faculty may also try to get technical documents from industry (Mancuso, 1984), for samples to work with or examples to illustrate writing principles.

In addition, degree programs must establish and maintain ties with industry so that curricula meet industry needs and expectations and graduates are prepared for careers in the field. Internships that allow students in such programs to work in industry may be particularly valuable (Bosley, 1988, and Norsworthy, 1988).

Process versus Product

Another issue revolves around the process/product debate that came out of research concerning composition instruction. Is it better to teach various "forms" used in technical communication; or is it better to teach a process of analyzing and composing, which leads to forms appropriate for the communication situation? Bishop (1987) describes a process-oriented course with an emphasis on peer interaction. Roundy (1985) argues for the efficacy of combined methods. In tracing the history of technical communication textbooks, Souther (1990) notes that for the most part, a compromise has been reached with texts he calls "hybrids." These books combine process and product approaches. They include models but take students through typical writing processes. They may also note rhetorical strategies and include sections that emphasize language usage and style.

Oral and Visual Components

A third issue for teachers of technical communication is the importance of oral and visual components. Desjardins (1987) points out that in business and industry, those responsible for producing technical documents often have to present them orally and need preparation to do so.

With the increasing accessibility of desktop publishing, the technical communicator's role is expanding to include graph-

ics, document design, layout, and the publication process. Gadomski (1988) discusses what can happen when a technical writer takes on the role of graphic designer. He also offers some resources for the writer in that new role.

The Importance of Computers

With the increasing use of computers, technical communicators will certainly be called on to use word processing and possibly desktop publishing. As Farkas (1988) points out, computers can alter, for the better, composing and editing techniques.

In addition to perhaps altering their composing, writers may be called on to write for a new medium. For online documentation or computer-based training materials, the "page" is not the printed one but a computer terminal screen.

Those who write computer manuals, argues Oram (1988) need an understanding of computer systems, both to understand the product and to know what to include in the manual.

What resources are available for teachers of technical communication?

Professional Organizations

Teachers of technical communication may become active in several organizations that provide contact with professional technical communicators and academicians who specialize in the field. The Society for Technical Communication (STC), 815 15th St., N.W., Washington, DC 20005, is the largest organization and includes professionals from both industry and education. The Association for Teachers of Technical Writing (ATTW), c/o Dr. Carolyn D. Rude, Dept. of English, Box 4530, Texas Tech. University, Lubbock, TX 79409, is strictly academic, and the Council for Programs in Technical and Scientific Communication (CPTSC) is a small organization concerned with academic degree programs.

Journals, Proceedings, and Textbooks

A number of journals provide articles on professional issues, comparison of academic curricula and programs, and specific assignments for the classroom. Although they are not discussed here, textbooks abound (Rainey, *et al*, 1990). STC publishes *Technical Communication* quarterly. Most of the articles are directed to the professional technical communicator, but such information is essential for the academician who wants to stay current. ATTW's journal, *The Technical Writing Teacher* (soon to be *Technical Communication Quarterly*) includes teaching-related articles and results of research in the field. It is an excellent source of ideas for the classroom. Other important journals are the *Journal of Technical Writing and Communication*, *IEEE Transactions on Professional Communication*, and the *Journal of Business and Technical Communication*.

In addition to the journals, proceedings from the CPTSC and STC (International Technical Communication Conference, ITCC) annual conferences are valuable resources.

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